

Tennessee Pollution Prevention Partnership Success Story



DENSO Manufacturing Athens Tennessee, Inc.
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Land and Water Conservation through Erosion Control

The Member

DENSO Manufacturing Athens Tennessee, Inc. (DMAT), is part of DENSO Corporation's global network of 74 subsidiaries in 29 nations and the fourth largest producer of advanced technology, components and systems for all major automakers. DMAT employs more than 800 associates. Automotive components and systems produced at the DMAT include the following:
Oxygen sensors, fuel injectors, air-flow meters, ignition coils, monolithic carriers and spark plugs

The Story – Responsible Development

In 2002, DENSO purchased an additional 38 acres of undeveloped land in Athens in order to build a monolithic carrier manufacturing facility. A monolithic carrier is the ceramic component of the catalytic converter. The monolithic carrier helps clean the vehicle exhaust as it passes through the catalytic converter.

Erosion and sedimentation are known to cause a negative impact on receiving water quality. In most cases, erosion and sedimentation are directly related to storm water flows, topography, soil characteristics, ground cover, and industrial activities; especially construction activities.

DENSO planned the monolithic carrier expansion to minimize erosion during construction and operation of the new facility. DENSO evaluated the impact of the expansion to the existing erosion control structures and practices. At DMAT erosion and sediment control are maintained by the existing vegetative cover, mulch, detention basins, vegetative swales, and stone energy attenuators (rip rap).

Detention basins operate by storing excess flow during a storm event and then releasing this flow as conveyance capacity in the drainage system becomes available. As a part of the expansion, one of the existing detention basins was expanded and a new basin was added to accommodate the runoff from the new facility and additional acreage. Another vegetative swale was also added to the site. Vegetative swales control erosion by trapping particulates, promoting infiltration and reducing the velocity of stormwater runoff.

Pollution Prevented

DENSO uses a combination of structural erosion controls and best management practices to prevent water pollution and promote land conservation.

TENNESSEE POLLUTION PREVENTION PARTNERSHIP

1-800-734-3619 <http://www.state.tn.us/environment/dca/tp3.htm>

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